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Title: Healthy and disease states in EpiGrid

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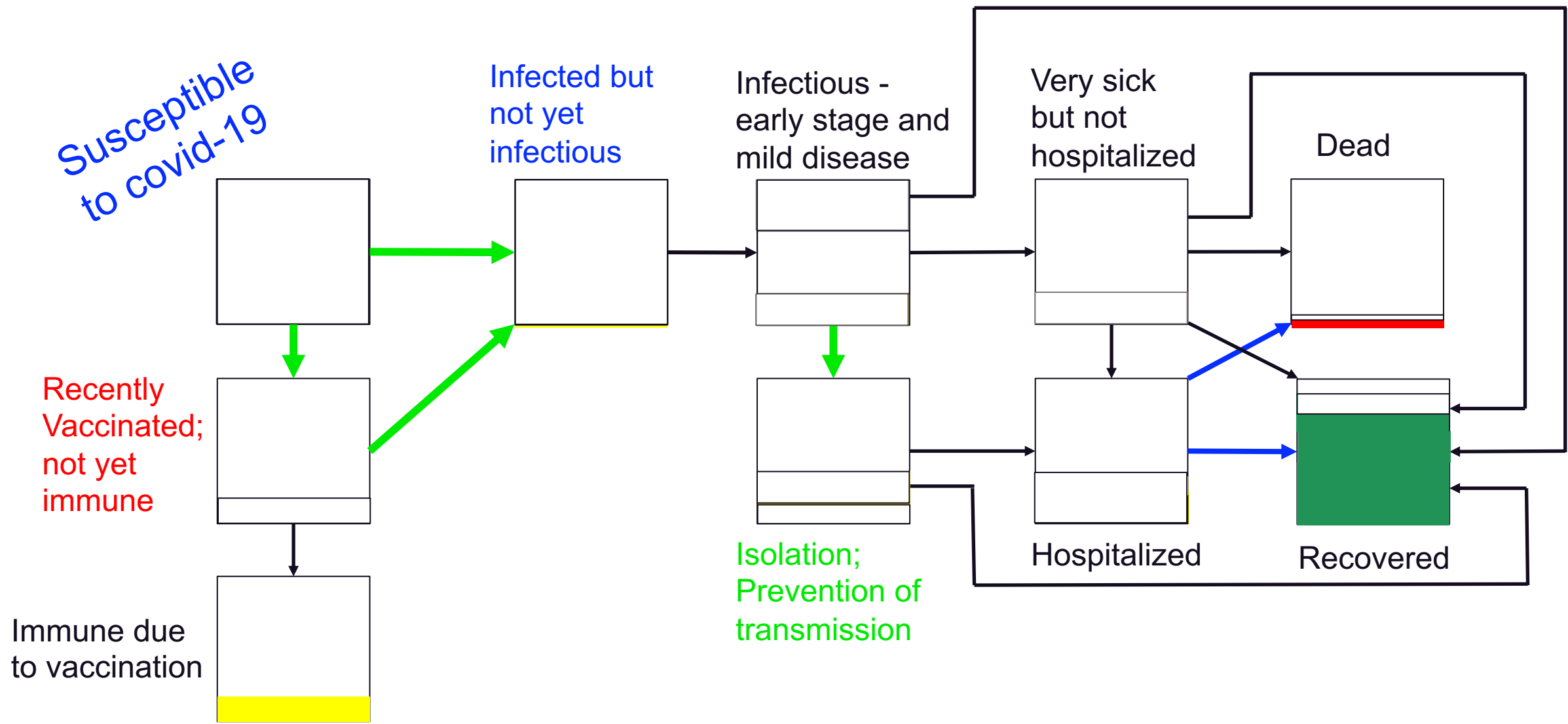
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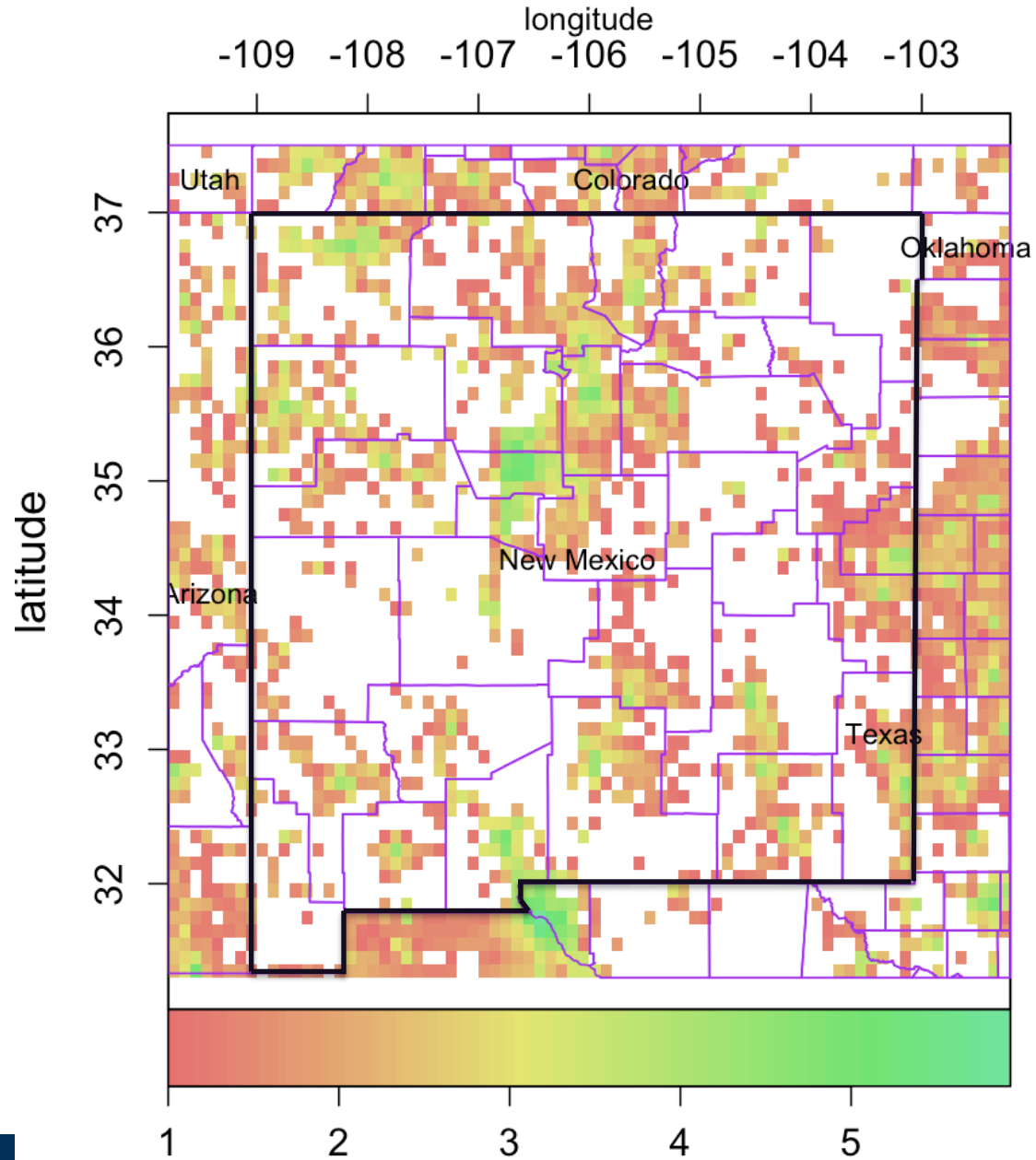
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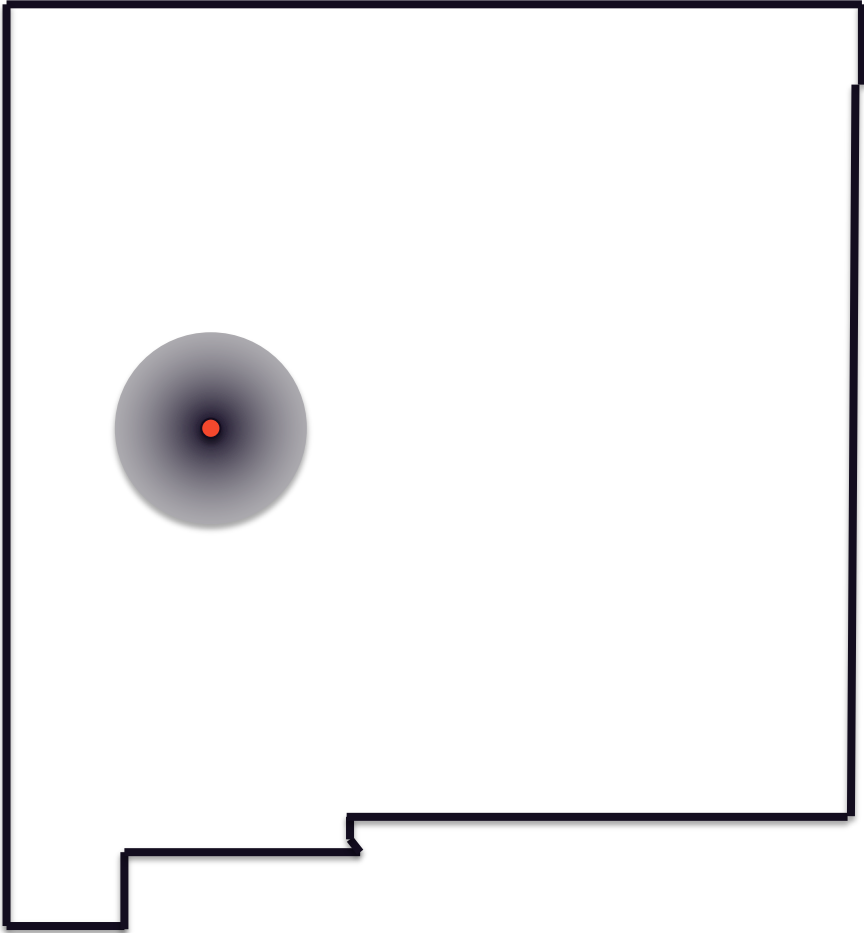
Healthy and disease states in EpiGrid



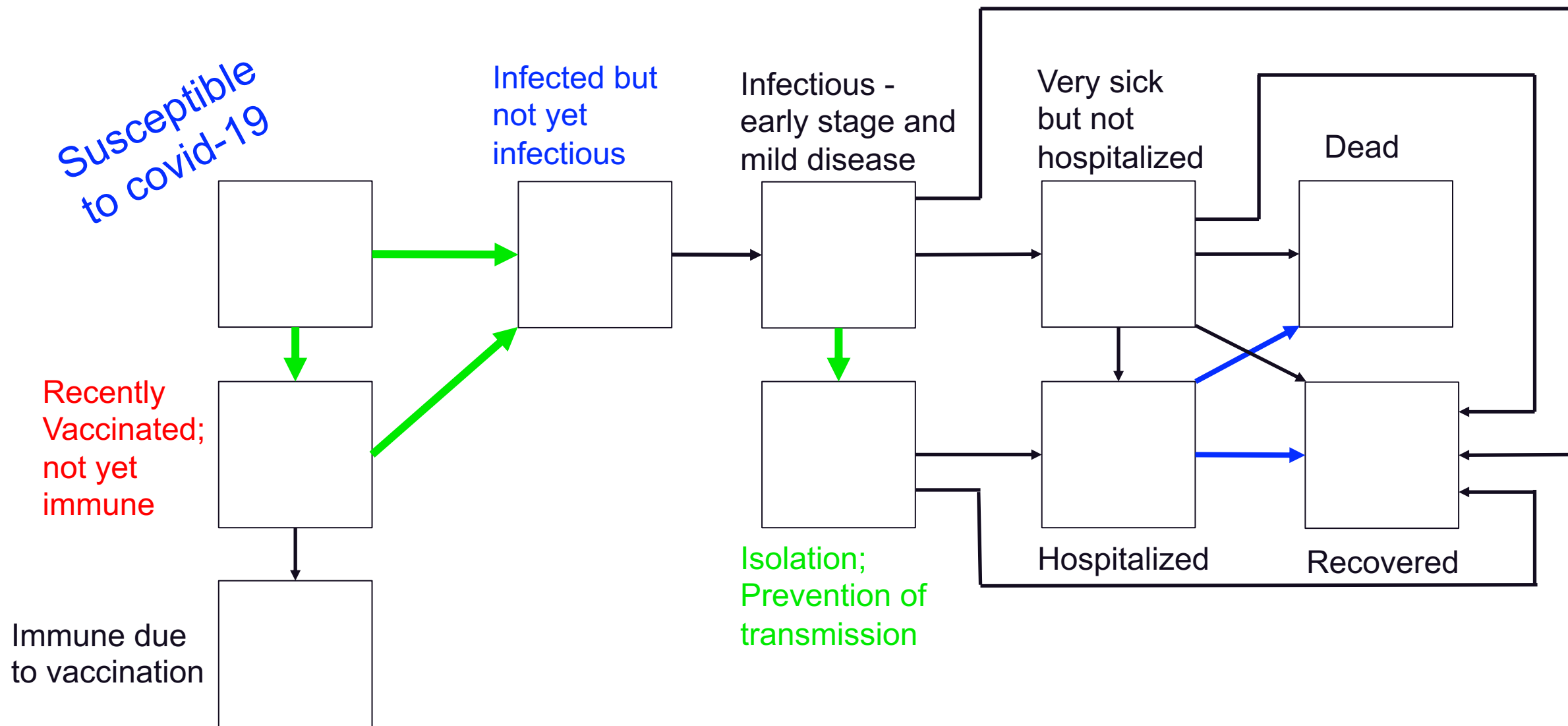
log10 Original population



Geographic Spread



Healthy and disease states in EpiGrid



3 Categories of Mitigations in EpiGrid

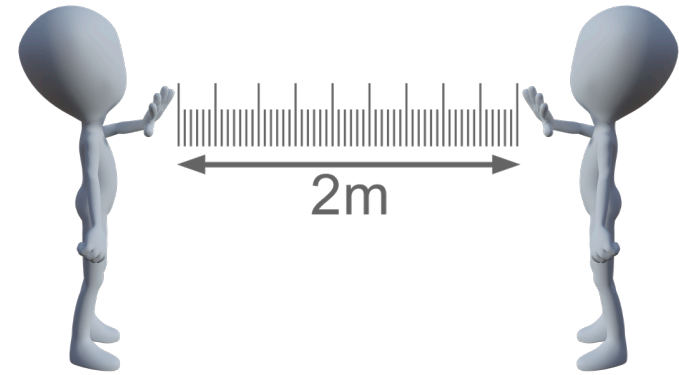


Photo by [Mark König](#) on [Unsplash](#)

Person-to-person transmission



Wash hands often.



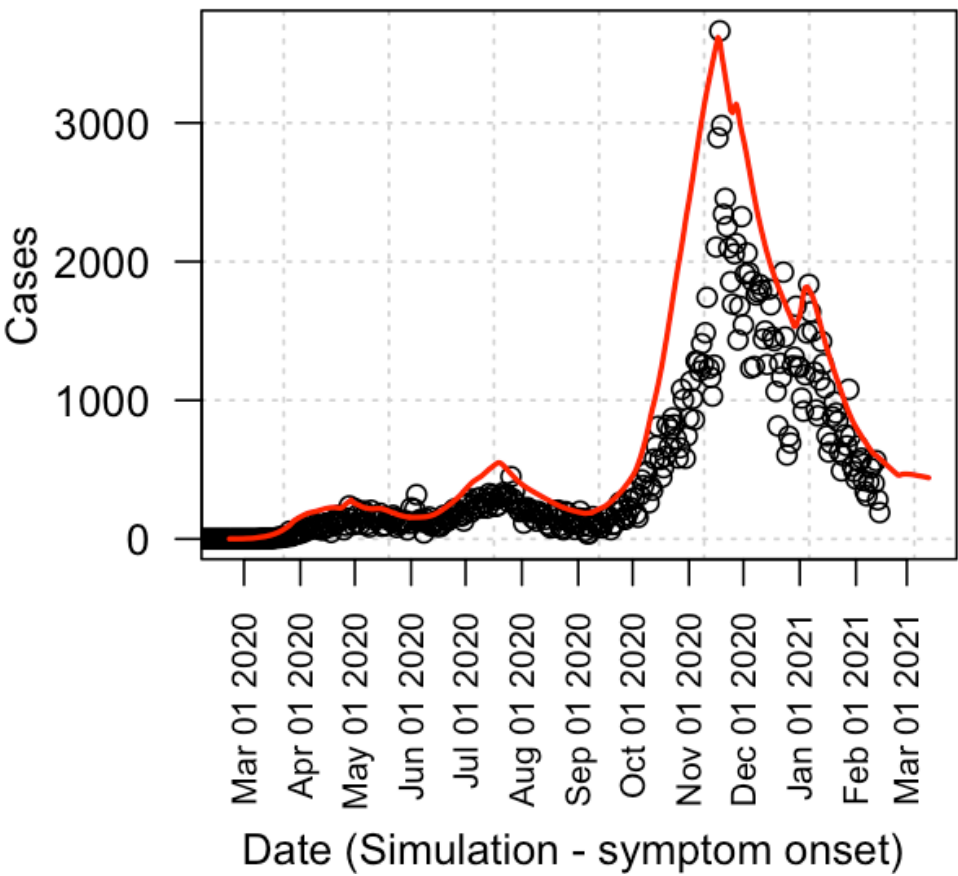
Vaccination



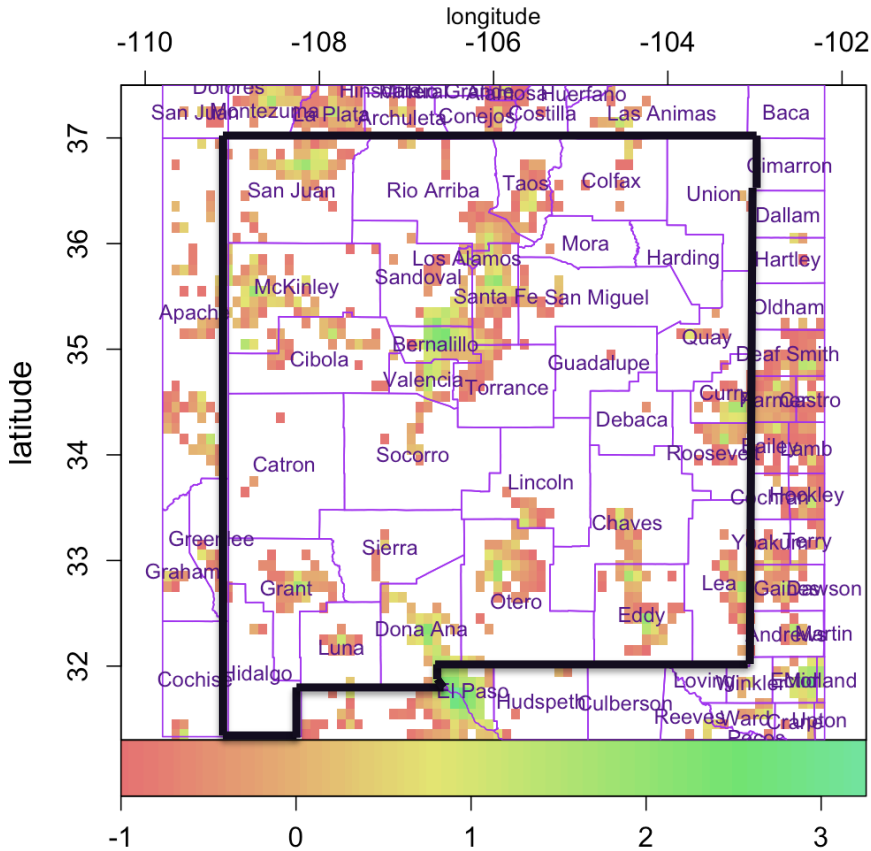
Contact-tracing and isolation

Results

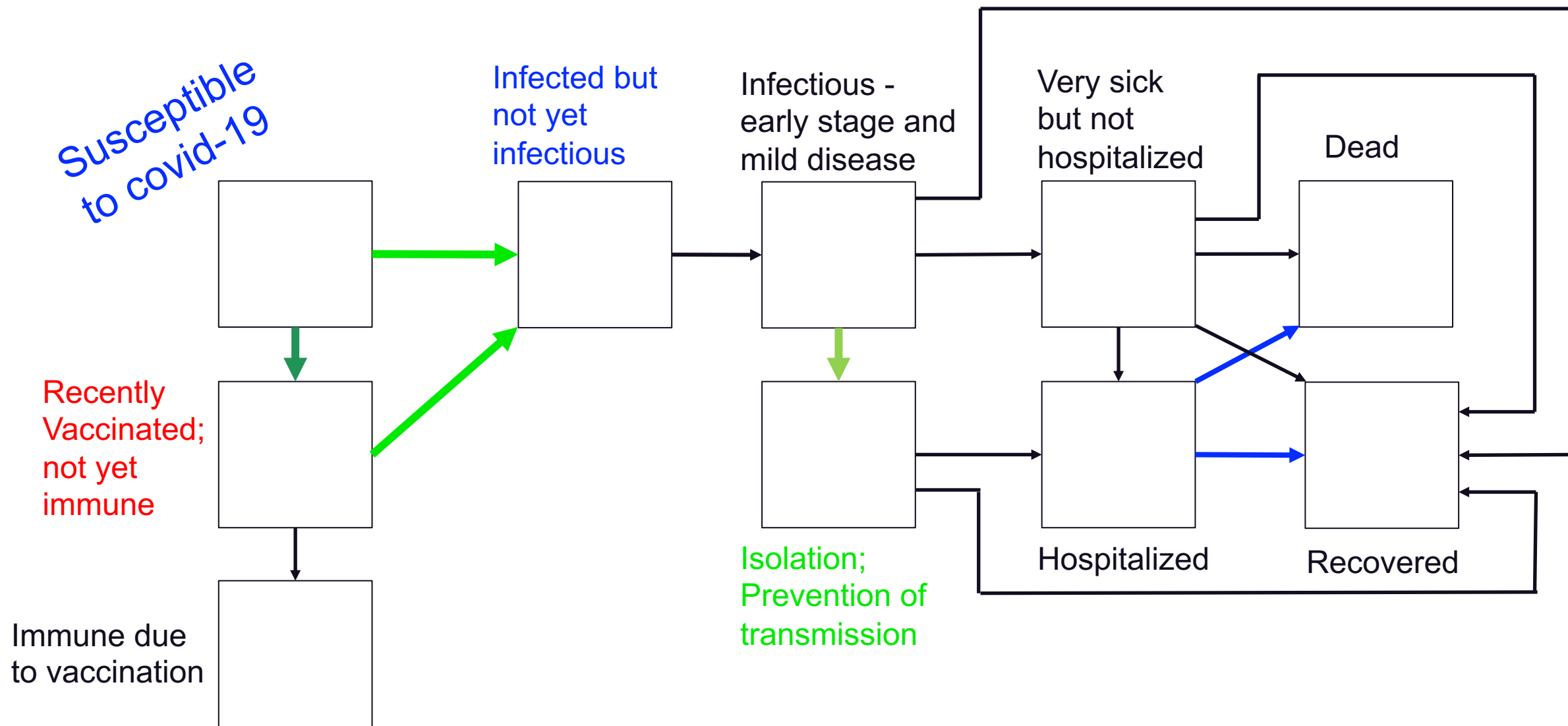
United States__New Mexico



log10 Incidence, wk 55, 2021-03-14



Healthy and disease states in EpiGrid



Recently
Vaccinated;
not yet
immune

Infected but
not yet
infectious

Infectious -
early stage and
mild disease

Very sick
but not
hospitalized

Dead

Hospitalized

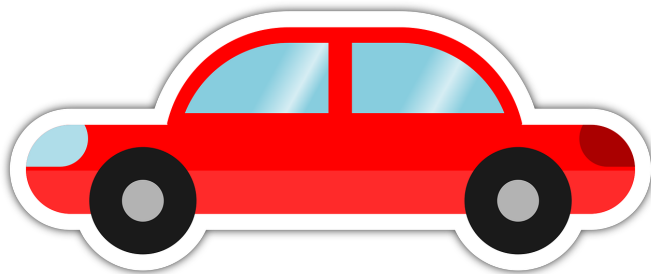
Recovered

Isolation;
Prevention of
transmission

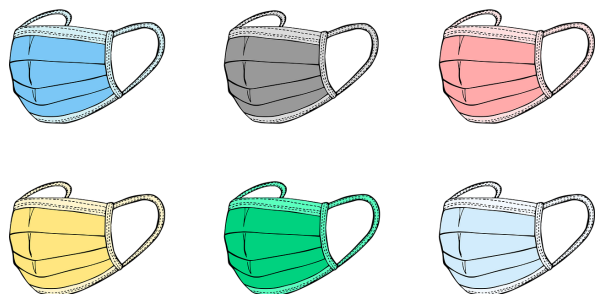
Immune due to vaccination

Inputs to the simulation

- Mobility



- Public Health Orders (state and tribal) Red/Yellow/Green framework

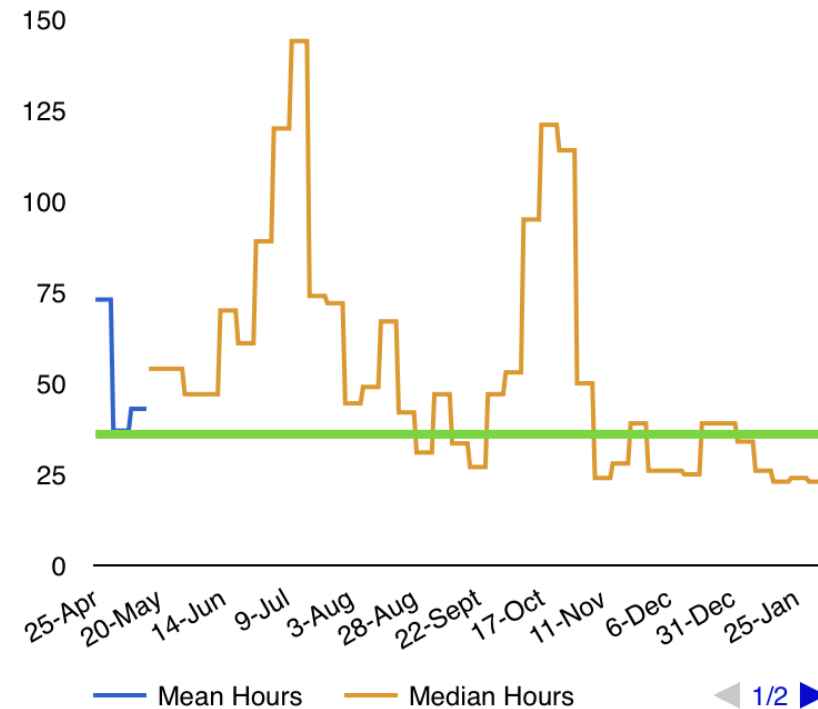


Dine-In Area
closed

Take-out and
Delivery Only

- State times to contact case contacts

Time from COVID-19 Positive Case to Contact Quarantine
(Hours), NM

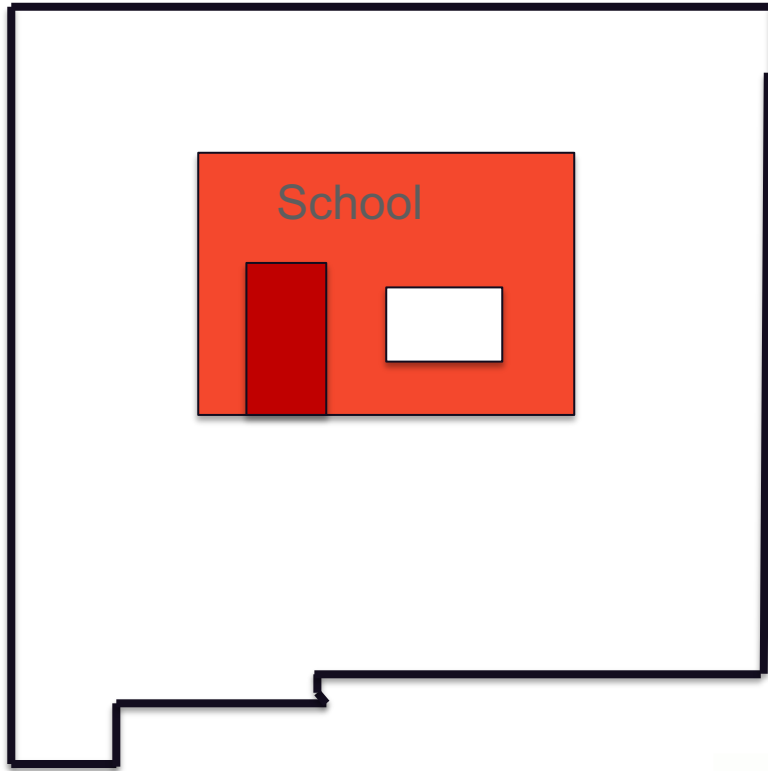


◀ 1/2 ▶

Modeling School Opening

Make minor changes to a simulation of the epidemic in New Mexico.

Transmission is modified for almost 20% of the population



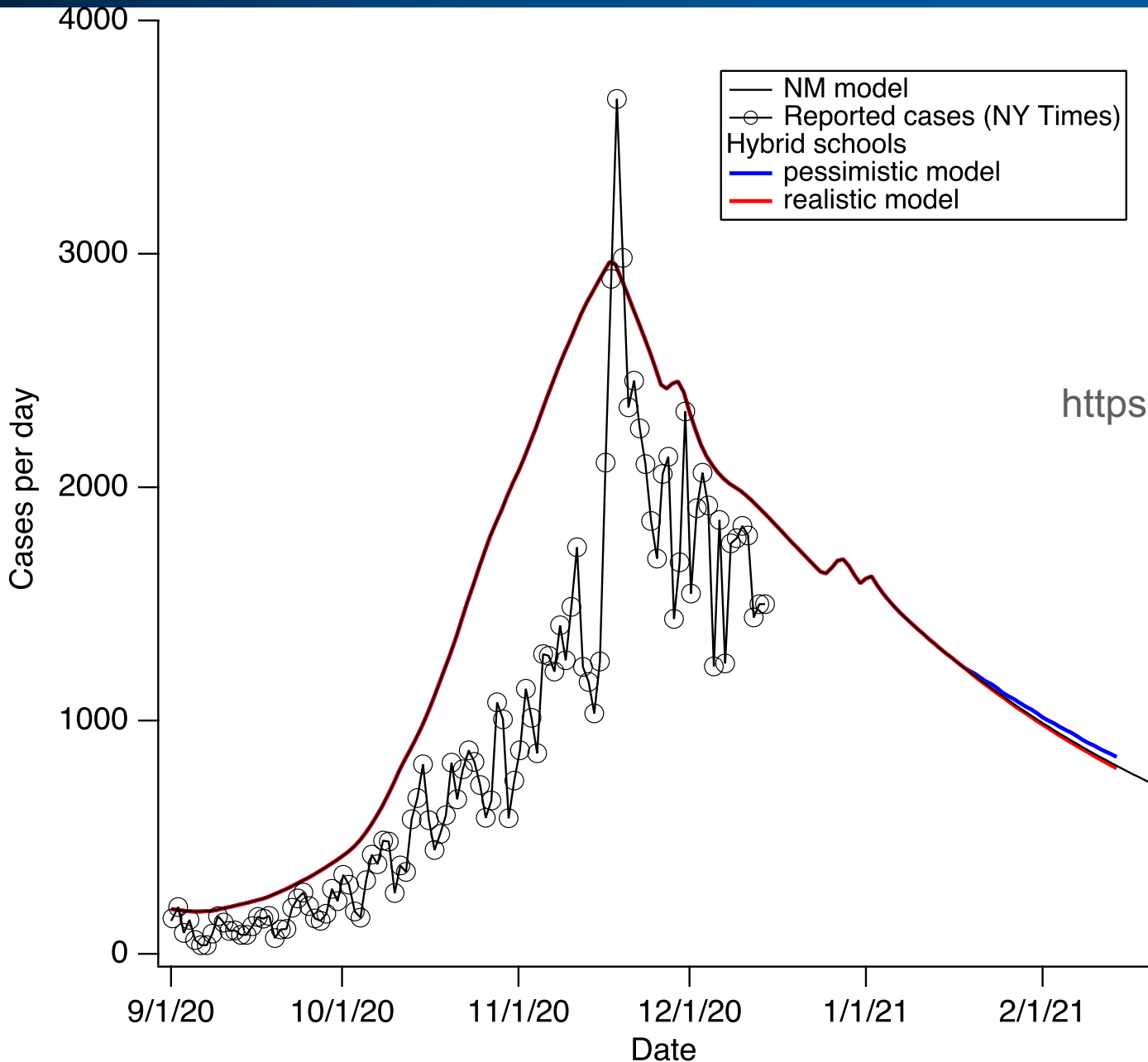
- **Scenarios:**
- 5 days a week with masking and physical distancing.
- Hybrid – 2 days at a week
 - $\frac{1}{2}$ of the school population present at one time
- $\frac{1}{2}$ day 5 days a week, morning/afternoon split



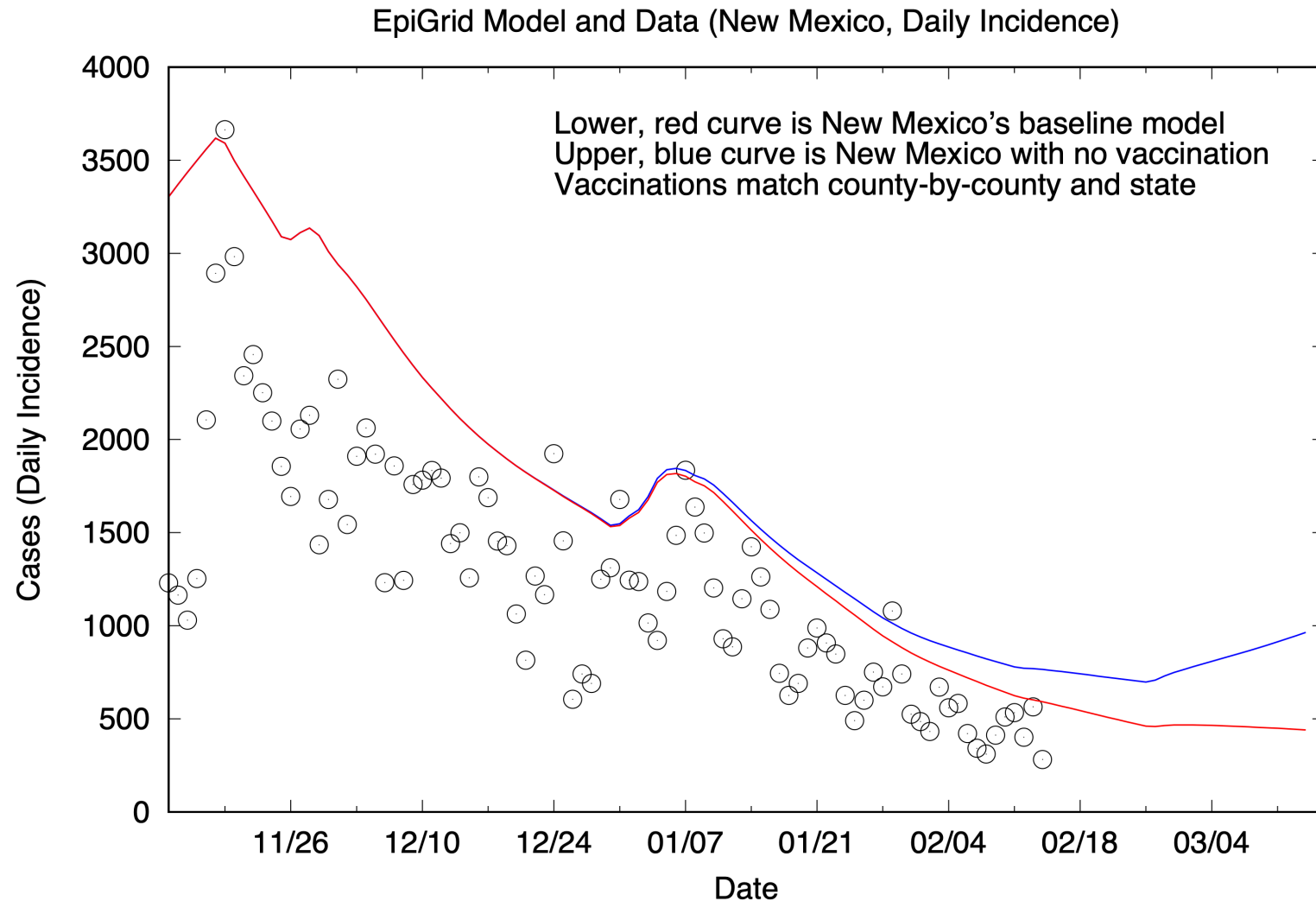
Dec. 15th simulation

**Schools in hybrid mode – opening
Jan. 18th, no vaccination**

<https://cvmodeling.nmhealth.org/home/modeling-updates/>



Effect of Vaccination in NM



Tue Feb 16 14:43:48 2021



From Brooks et al 2021 MMWR

